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ABSTRACT

This educational newsletter highlights a lead article, "Evidence-Based Research in Education." The article explains that evidence-based research emerged in the field of medicine over 50 years ago, resulting in major advances in the treatment and prevention of disease. It adds that clinical guidelines and protocols are based on the results of controlled experiments following rigorous standards of science. The U.S. Department of Education is embracing evidence-based research to improve the effectiveness of educational interventions and, in turn, academic achievement. The article discusses the No Child Left Behind Act and the Coalition for Evidence-Based Policy. It recommends strategies for the Department of Education to bring evidence-driven progress to education. Other information materials in the newsletter are: "The What Works Clearinghouse"; "NDDR Grantees Review WWC Draft Standards"; and "Resolution of the AAMR on Evidence-Based Research and Intellectual Disability." (BT)

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THE Research Exchange

At a Glance

EVIDENCE-BASED RESEARCH IN EDUCATION 1

A WORD FROM THE DIRECTOR
Evaluating the Quality of Research Findings 2

THE WHAT WORKS CLEARINGHOUSE 4

The Campbell Collaboration 5

NIDDR GRANTEES REVIEW WWC DRAFT STANDARDS 6

Comments on *Study DIAD* and *CREAD* 6

Comments from Researchers on Application of the WWC Standards to NIDRR Research 11

Response from the WWC to NIDRR Researchers' Comments 13

RESOLUTION OF THE AAMR ON EVIDENCE-BASED RESEARCH AND INTELLECTUAL DISABILITY 12

ONLINE RESOURCES 13

WHO'S IN THE NEWS 14

NIDRR GRANTEE AND STAFF RECOGNITION 15

This newsletter is available in alternate formats upon request.

SOUTHWEST EDUCATIONAL DEVELOPMENT LABORATORY
SEDL
Building Knowledge to Support Learning

A project funded by the NIDRR

Evidence-based Research in Education

Evidence-based research emerged in the field of medicine over 50 years ago, and has resulted in major advances in the treatment and prevention of disease. Clinical guidelines and protocols are based on the results of controlled experiments following rigorous standards of science. Improvements in public health and reduced death rates have occurred not by chance but due to the requirements of the Federal Drug Administration (FDA) and National Institutes of Health (NIH) to implement effective, evidence-based research (Coalition for Evidence-Based Policy, 2002).

The Cochrane Collaboration **http://www.cochrane.org/** is an international organization "that aims to help people make well informed decisions about health care by preparing, maintaining and ensuring the accessibility of systematic reviews of the effects of health care interventions" (Cochrane Collaboration, 2003). The first Cochrane Center was established in 1992 to fulfill the legacy of Archie Cochrane, a British epidemiologist, who suggested the need for a systematic review of randomized controlled trials in order to understand health care and what was most effective. The Cochrane Collaboration includes groups of researchers (and others) in many countries, that focus on reviewing studies in different health care areas and developing reliable reports to be archived in accessible databases.

The U.S. Department of Education is embracing evidence-based research in order to improve the effectiveness of educational interventions and in turn, academic achievement.

The U.S. Department of Education (ED) is embracing evidence-based research in order to improve the effectiveness of educational interventions and in turn, academic achievement. The "No Child Left Behind" Act

Evidence-based Research in Education
continued on page 3

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A Word from the Director

Evaluating the Quality of Research Findings

Quality is an elusive characteristic that often derives as much from the "eye of the beholder" as it does from an objective application of a measurement standard. Additionally, quality often becomes defined in relation to what has happened, what has been the case, or what has been produced in the past. This is why statements associated with establishing criteria to distinguish quality from non-quality frequently change over time due to the relative and changing nature of our perception of what quality is.

It is also the case that quality of information derived from research faces acceptance or rejection by others based on its perceived credibility. In the world of research, this is referred to as face validity. The perception of "high quality research results" can be influenced by a variety of factors ranging from the area selected for research and why, how the research was designed, diversity of the sample, data collection methods, partners in the research activity, data analysis methods, and statement of implications of the findings—just to name a few of the factors involved. In the real world, those learning of research findings usually are most concerned with: (a) Does it relate to me and a need I have today? and (b) Can I access it, use it, and benefit from it?

NIDRR's Rehabilitation Research and Training Centers (NCDDR & NARRTC, 2003) used a consumer-oriented category system in summarizing their accomplishments. This system was based around quality of life questions a person with a disability often raises (Corrigan, 1994). These include:

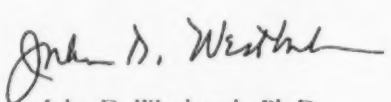
- How long will I live?
- What will I live on?
- Where will I live?
- What will I do?
- Whom will I love?
- How much choice will I have?

Most consumers, the ultimate beneficiaries of disability research efforts, would likely not find research to be of "high quality" unless it addressed at least one of these major quality of life questions.

Today, the quality of research has been implied in a variety of national policies under a different name – scientifically based (or evidence-based) research. The National Research Council (2002) has suggested several principles to guide us in distinguishing scientifically based research from other forms of research. These principles describe scientifically based research as being:

- driven by significant questions;
- empirical in nature;
- theory based;
- designed around a sound linkage between the research question and the research method;
- based on clear inferential reasoning;
- capable of being replicated producing similar results;
- generalizable to significant audiences; and
- available for professional scrutiny.

In linking quality considerations with information dissemination, a growing demand exists for information that has been determined to have reached an acceptable level of quality prior to making it available for utilization by others. This issue of *The Research Exchange* discusses one of these efforts being conducted by the What Works Clearinghouse. Their draft criteria to judge quality of research results was shared with a group of NIDRR-sponsored researchers for their reactions and comments. These are included in this issue along with news about special recognitions and media featuring NIDRR grantees.



John D. Westbrook, Ph.D.
Director

National Research Council. (2002). *Scientific research in education.* Washington, DC: National Academies Press.

NCDDR & NARRTC. (2003). *RRTC Highlights of Accomplishments.* Austin: SEDL. Available: http://www.ncddr.org/du/products/rrtc-hilights/index.html

Evidence-based Research in Education
continued from page 1

(NCLB) signed by President Bush in 2001 emphasizes accountability and the use of scientifically based research.

The Coalition for Evidence-Based Policy has worked with ED since 2001 to help define and forge a policy that supports evidence-based research. It sponsored a forum on November 18, 2002, *Rigorous Evidence: The Key to Progress in Education*, that involved staff from ED, the White House, and the Office of Management and Budget, as well as representatives from education committees in the Congress, educators, advocates, and researchers.

Bringing Evidence-Driven Progress To Education: A Recommended Strategy for the U.S. Department of Education is a collaborative report by the Coalition that was released at the forum. The Executive Summary of the report offers the following suggestions:

1. A major, Department-wide effort should be launched to:
   (i) Build the knowledge base of educational interventions proven effective through randomized controlled trials – not just in small demonstration projects but in large-scale replications; and
   (ii) Provide strong incentives for the widespread use of such proven interventions by recipients of federal education funds.
2. In order to build the knowledge base of effective, replicable interventions in High Priority Areas:
   - The Department should focus its discretionary funds for research and evaluation on randomized trials to identify such interventions.
   - The Department's grant programs should give applicants major incentives to use their discretionary funds to carry out such randomized trials.
3. In order to provide strong incentives for the widespread use of proven interventions, the Department's grant programs should require applicants to provide a plan for widespread implementation of research-proven interventions, with quantifiable goals.

Coalition for Evidence-Based Policy. (2002.) Bringing Evidence-Driven Progress To Education: A Recommended Strategy for the U.S. Department of Education (Executive Summary.) Washington, DC: Author. Available: **http://www.excelgov.org/usermedia/images/uploads/PDFs/CoalitionExSum.pdf**

The Education Sciences Reform Act (ESRA) of 2002 (P.L. 107-279) was signed on November 5, 2002. The purpose of the ESRA is "to provide for improvement of Federal education research, statistics, evaluation, information, and dissemination..." ESRA established the Institute of Education Sciences (IES) within ED, replacing the Office of Educational Research and Improvement (OERI).

The IES reflects the intent of the President and Congress to advance the field of education through support of rigorous evidence-based educational research. Dr. Grover J. (Russ) Whitehurst was appointed as the first Director of the IES (**http://www.ed.gov/about/offices/list/ies/index.html**). Whitehurst describes the current state of education as 90 percent professional wisdom based on experience, and 10 percent empirical evidence based on research. He wants to swap the percentages, using evidence-based or scientifically based research to guide educational improvement (Whitehurst, 2002. **http://www.ed.gov/nclb/methods/whatworks/eb/edlite-slide021.html**).

The Individuals with Disabilities Education Act (IDEA) is due for reauthorization in 2003. Following the lead of the NCLB, Secretary of Education Rod Paige has emphasized the need for increased accountability and "doing what works" to improve educational outcomes for students with disabilities.

"IDEA should ensure that schools, local education agencies, state education agencies and the Federal Department of Education quickly adopt research and evidence-based practices. OSERS research and training activities should be aligned with the work of the Department's Institute of Education Sciences. Additionally, information should be provided to families and teachers on effective programs based on rigorous research, including requiring the federally funded parent training centers to educate parents about effective research that improves results for students with disabilities. IDEA should also reflect the research principles outlined by the President's Commission on Excellence in Special Education while adhering to the standards for high quality research established by the Education Sciences Reform Act of 2002" (**http://www.ed.gov/news/pressreleases/2003/02/02252003.html**).

The reauthorization of the Rehabilitation Act of 1973, as amended, is scheduled to occur prior to October 1, 2003. As this date draws near, it is likely that the changes seen in previous legislation may be discussed as part of the reauthorization process.

Many NIDRR grantees are located in medical centers that are involved with evidence-based clinical research. However, many NIDRR grantees may not be conducting experimental research through randomized trials.

Research that samples low-incidence students and adults with disabilities with unique conditions may not be feasible in research designs utilizing randomized trials. Groups such as the American Association for Mental Retardation have issued position statements describing the potential exclusion of people with developmental disabilities from "approved" evidence-based research (see related article, "Resolution of the AAMR on Evidence-Based Research and Intellectual Disability," on page 12).

The What Works Clearinghouse

"The What Works Clearinghouse (WWC), launched in 2002, has specified clear and rigorous methodological standards for demonstrations of program effectiveness in education. ...We expect the Clearinghouse to become the principal source of valid information on effective educational practice" (Whitehurst, 2003).

In his March 13, 2003 statement before the U.S. House Subcommittee on Labor/HHS/Education Appropriations, Assistant Secretary Whitehurst noted that the WWC was the focal point of the nearly $20 million requested for dissemination activities within the IES budget (Whitehurst, 2003. **http://www.ed.gov/news/speeches/2003/03/03132003a.html**).

The WWC was funded to identify educational interventions and programs that are based on research conducted with rigorous experimental methods. Whitehurst noted that in the No Child Left Behind Act (NCLB), the term scientifically based research is found 111 times. The NCLB defines scientifically based research as "...research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs" (Whitehurst, 2002. **http://www.ed.gov/nclb/methods/whatworks/eb/edlite-slide013.html**).

Providing evidence. Improving education.

The WWC has been established by the U.S. Department of Education's Institute of Education Sciences to provide educators, policymakers, and the public with a central, independent, and trusted source of scientific evidence of what works in education. The WWC is administered by ED through a contract to a joint venture of the American Institutes for Research and the Campbell Collaboration, internationally recognized leaders in the fields of education research and rigorous reviews of scientific evidence.

The Cochrane Collaboration serves as a model for the Campbell Collaboration, which focuses on the "social, behavioral, and educational arenas" (Campbell Collaboration, 2003). Established in 2000, the Campbell Collaboration works closely with the Cochrane group (see related article on page 5).

Subcontractors for the WWC include Aspen Systems Corporation and Caliber Associates, Inc. Aspen provides technological, communications, and meeting support, including designing and maintaining the WWC Web site and databases, publishing an electronic news bulletin, and producing outreach products. Caliber Associates is contributing to the first year education topic reviews for the WWC.

The WWC seeks input from the education community and encourages you to visit the Web site **http://w-w-c.org/** for more information on the WWC and how you can be involved. To receive regular updates on the work of the WWC, you may send your name and email address to **wwcinfo@w-w-c.org**, or subscribe to WWCUpdate at: **http://w-w-c.org/list.html**

Scope of Work

The WWC scope of work includes support for informed education decision-making by producing WWC Evidence Reports, high-quality reviews of scientific evidence of the effectiveness of educational programs, practices, products, and policies. Through a set of accessible Web-based databases, the WWC will provide decision makers with the information they need to make choices based on high-quality scientific research. The WWC is to provide:

- reviews of potentially replicable interventions (programs, products, and practices) that are intended to enhance student outcomes;
- information about the evaluation studies on which intervention reviews have been based;
- scientifically rigorous reviews of test instruments used to assess educational effectiveness; and
- outcome evaluators (individuals and organizations) willing to conduct evaluations of educational interventions.

The WWC databases are intended to complement those of the current ERIC Clearinghouses. The administration of the ERIC system is being recompeted and the current Clearinghouses are scheduled to begin phasing out in December 2003.

WWC Standards

The WWC's standards for reviewing studies and interventions for scientific evidence of educational effectiveness will be used to prepare WWC Evidence Reports on identified topic areas.

> These documents—the *Study Design and Implementation Device (Study DIAD)* and the *Cumulative Research Evidence Assessment Device (CREAD)*—will be used to review and report on the characteristics of individual educational-effectiveness studies, identify the strengths and weaknesses of each study's methodology, and assess the strength of the conclusions that can be drawn from a body of research on specific educational interventions—that is, well-defined and replicable programs, products, practices, and policies. (**http://www.w-w-c.org/pr_062003.html**)

The draft *Study DIAD*, used to review individual studies and interventions, was posted on the WWC Web site and online comments were accepted from November through December, 2002. In addition, a forum through which more public input was received, was held on November 22, 2002. Feedback, a summary document and report on the forum were posted on the WWC's Web site in January 2003. An initial draft of the *CREAD*, which is designed for use in reviewing a cumulative body of work, was posted in January 2003 and comments were taken.

Versions 1.0 of the *Study DIAD* and of the *CREAD* were approved by the WWC's Technical Advisory Group (TAG) in June 2003. The *Study DIAD*, Version 1.0 was posted on the WWC Web site in July, and Version 1.0 of the *CREAD* will be posted in August 2003.

First Year Topic Areas

WWC Evidence Report topic areas are chosen to meet the needs of K-12, adult educators, and education decision makers to identify and implement effective approaches to improving student outcomes. Each year, the WWC is to develop an agenda for the education topic areas it will review. Nominations for future topic areas are continually accepted via the WWC Web site. Nominations should meet the definitions and criteria outlined at **http://www.w-w-c.org/topicnom.html**

The topic areas identified by the WWC for first year review are:

- Interventions for Beginning Reading
- Curriculum-Based Interventions for Increasing K-12 Math Achievement
- Preventing High School Dropout
- Programs for Increasing Adult Literacy
- Peer-Assisted Learning in Elementary Schools: Reading, Mathematics, and Science Gains
- Interventions To Reduce Delinquent, Disorderly, and Violent Behavior in Middle and High Schools
- Interventions for Elementary School English Language Learners: Increasing English Language Acquisition and Academic Achievement.

The WWC Web site information does not specifically mention, nor at this time, include specific interventions for students with disabilities. In the future, the WWC hopes it will produce Evidence Reports that specifically focus on interventions targeting students with disabilities. At present, whenever possible, if there are high-quality studies that break out findings by subcategories the WWC will report findings on students with disabilities within all relevant Evidence Reports. It should be noted that the WWC does not conduct field research, and therefore depends on existing research to produce its Evidence Reports.

The Campbell Collaboration

The Campbell Collaboration is an international organization that aims to prepare, maintain, and disseminate high-quality, systematic reviews of studies of effectiveness of social and educational policies and practices. By supporting the production of these reviews and by disseminating results in an accessible fashion, the Campbell Collaboration intends to contribute to decisions in practice, policy and public understanding.[1]

The Campbell Collaboration collaborates with its sibling organization, the Cochrane Collaboration, which prepares and maintains systematic reviews of the effects of interventions in health care. Established in 2000, the Campbell Collaboration is named after an American psychologist and thinker, Donald Campbell, who drew attention to the need for societies to assess more rigorously the effects of their social and educational experiments, that is, the policies and practices that they introduce and promote.[2]

The Campbell Education Group aspires to help teachers, parents, students, school administrators, and education policy makers make well-informed decisions about teaching and learning by putting the best available evidence from systemic reviews of educational research at the heart of educational policies and practice.[3]

The Campbell Collaboration - American Institutes for Research Joint Venture was established specifically to develop and maintain the What Works Clearinghouse, and brings together nationally recognized leaders in the field of rigorous reviews of scientific evidence. The chair of the Steering Group of the Campbell Collaboration, Robert Boruch, serves as Principal Investigator for the WWC.[4]

Sources:

1 Campbell Collaboration Methods Group Guiding Principles **http://www.missouri.edu/~c2method/**

2 The Campbell Collaboration - A Brief Introduction **http://www.aic.gov.au/campbellcj/intro.html**

3 Campbell Collaboration Coordinating Groups **http://www.campbellcollaboration.org/cccgroup.html**

4 U.S. Department of Education Awards Contract for 'What Works Clearinghouse' **http://www.ed.gov/news/pressreleases/2002/08/08072002a.html**

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NIDDR Grantees Review WWC Draft Standards

Although much NIDRR-funded research is focused on areas outside of K-12 education, the NCDDR believes it is important to make all NIDRR grantees aware of the evidence-based and scientifically based emphasis that ED is placing on research and interventions for education. For projects that do focus on K-12, it is critical for their NIDRR-funded research to be included in the WWC databases. The NCDDR has begun an activity to gather information developed by NIDDR grantees that addresses infants, children and youth with disabilities. This activity is being conducted in order to bring forward NIDRR-sponsored research that may appropriately be included in the WWC research collection.

NCDDR staff asked researchers from Rehabilitation Research and Training Centers (RRTCs) and a sample of other NIDRR grantees to review the draft documents *Study DIAD*, Version 0.6 and *CREAD*, Version 0.6, along with other information available from the WWC Web site.

Study DIAD

The *Study Design and Implementation Assessment Device* (*Study DIAD*) "is a system for assessing the degree to which the design and implementation of individual evaluations permit conclusions about the causal effects of an intervention" (p.1, Valentine & Cooper, 2003). The designers of the *Study DIAD* "attempted to create one instrument that can be used to answer questions at four different levels of specificity. We wanted the most general level to be understandable to an audience of nonresearchers and the most detailed level to be specific enough to satisfy researchers' desire for comprehensiveness and explicitness.

The questions are arranged so that answers at one level—the most specific level—feed into a set of design and implementation questions at a second level, a set of *Composite Questions* at a third level, and then into a fourth level of even more general questions" (p. 2-3, Valentine & Cooper, 2003).

Valentine, J. C., & Cooper, H. (2003). What Works Clearinghouse Study Design and Implementation Assessment Device (Version 1.0). Washington, DC: U.S. Department of Education

NIDRR grantees reviewed the draft Version 0.6 (posted 3/11/03) **http://w-w-c.org/standards06.doc**

Approved in June 2003, Version 1.0 is now available (posted 7/17/03) **http://w-w-c.org/DIAD_Final.doc**

CREAD

Companion to the *Study DIAD* is the *Cumulative Research Evidence Assessment Device, (CREAD)* Version 1.0. The *CREAD* is a device that is meant to "provide an expression of the confidence with which a conclusion can be drawn about the existence of causal effects of an intervention based on an entire body of accumulated evidence." ..."The *CREAD* will assess confidence in causal inferences based upon the (a) number, (b) validity characteristics, (c) variations, and (d) consistency in results of studies included in the evidence base" (p. 1, Cooper & Valentine, 2003).

The *CREAD* and the *Study DIAD* both utilize Cook & Campbell's "threats to validity" framework. The *CREAD* uses three dimensions that are unique to evaluating the certainty of inferences permitted by a set of studies, or an evidence base: depth, breadth, and consistency (p. 2, Cooper & Valentine, 2003).

Cooper, H. & Valentine, J.C. (2003). What Works Clearinghouse *Cumulative Research Evidence Assessment Device* (Version 0.6). Washington, DC: US Department of Education.

NIDRR grantees reviewed draft Version 0.6 (posted 1/23/03) **http://w-w-c.org/creadv06.doc**

Approved in June 2003, Version 1.0 will be posted on the WWC Web site in August 2003.

Comments on *Study DIAD* and *CREAD*

Selected NIDRR researcher were asked to submit any questions about how the standards and review process might apply to NIDRR-funded research, specifically:

(a) Overarching questions regarding how "quality of research results" will be established through these standards, and

(b) Questions that may be relevant to establishing the extent to which research results that may be included in the WWC's databases would adequately address the needs of individuals with disabilities.

Comments and questions about the *Study DIAD* and *CREAD*, versions 0.6, were received from 14 NIDRR grantees, and they were forwarded to staff of the WWC for their comment.

Respondent 1:

- Currently, the *Study DIAD* only covers papers reporting intervention studies, and within that category only those that were designed as intervention studies. Other designs that often are used to evaluate

interventions (any retrospective designs, e.g. case control) are not covered. Certain prospective intervention designs are also not covered, (e.g. single subject designs, case series and other "weak" designs). Many of these approaches to research yield useful data that would either be not counted or discounted by the *Study DIAD*.

- NIDRR grantees doing intervention research often produce multiple publications, all relevant to the main research question or major research hypothesis. *Study DIAD* has no mechanism to handle this. (However, if the publications do not "contradict" one another - different number of cases, etc. - the outcomes could be combined for a single *Study DIAD* scoring).

- Based on their research data NIDRR grantees often also publish papers that address side questions, ad hoc hypotheses, etc., for which the research design that was used to answer the main question may not be optimal. *Study DIAD* should not be used to condemn papers addressing "peripheral" issues and ad-hoc questions; as pilot/exploratory work they may help the science move forward, and should be published with credit given to NIDRR for facilitating "innovation."

- *Study DIAD* does not come up with one total score/judgment, but with four; possible answers include "YES," "NO," "MAYBE YES" and "MAYBE NO." These latter two judgments are not sufficiently grounded to serve as a basis for grant program management decision making. Similarly, there is no mechanism to combine just YES and NO judgments into an overall judgment of a paper, let alone a grant-funded research program.

- While criteria for what is good and what is poor research practice (see p. 5 of *Study DIAD*) are pretty clear and agreed upon among researchers and writers of research methodology textbooks, there is less consensus as to what is good or best or acceptable practice in a resource-poor environment: limited funding, overly restrictive human subjects requirements that result in large and selective attrition, and other logistical problems that are outside the investigator's control. (Especially as uncontrolled/unplanned events unfold after a study has been started, e.g. the introduction of HIPAA). *Study DIAD* does not allow a judgment of "adequate given the circumstances."

Bringing forward the science of effective interventions is a good thing; the judgment on the usefulness and effect size of an intervention should be based strictly on the results of a study as implemented. For management of a research program this is a bad thing; judgments on productivity should take into account the fact that resources may be limited, or that after the start of a research study there were changes in the environment of the study that made implementation of the original plan difficult if not impossible.

Possible refinements to Study DIAD:

- Include questions addressing whether the experimental or the control groups may have been exposed to interventions outside the study (co-interventions) that may have enhanced or diminished the effect of the experimental intervention. Similarly missing from the *Study DIAD* are other aspects of history, maturation, testing, instrumentation, etc. that imperil internal validity.

Following are specific comments about the eight *Composite Questions* in the *Study DIAD*. These will be identified as *CQ1 (Composite Question #1)*, etc.

- Construct validity–intervention addressed in *CQ1* and construct validity–outcome measures in *CQ2* do not seem to reflect traditional issues of construct validity (which refer to the adequacy of the data produced by an instrument in quantifying a construct), but to other issues such as:

  - Was the intervention properly defined, described, implemented? (issues of treatment fidelity)

  - Was the outcome measure relevant to the intervention? (only *CQ2.2* addresses construct validity proper)

- It is possible to have a misguided, muddled, undefined, undescribed intervention that is measured (exquisitely, but wrongly) using a psychometrically strong instrument. The same is possible for outcomes: the instrument is a great one, but it has just no relevance to the concept the researcher aims to measure. The correspondence between concept and measurement data is the domain of construct validity; to use the same term for other issues just confuses us even more than we already are with the 213 types of "validity" researchers have invented to date.

- *CQ3* dealing with internal validity–selection (for randomized experiments, quasi-experimental, and regression discontinuity designs) does not address adequacy of the randomization scheme and of the randomization concealment. These have been shown to be major problems in clinical medical research.

- *CQ5* combines questions on sampling of cases, sampling of outcomes and sampling of post-intervention time points. The latter two issues might be better placed in *CQ2* that deals with outcome measures.

- Issues of negative side effects, balance of benefits and risks are not included. Are these irrelevant

continued on page 8

NIDRR P[illegible] review WWC Draft Standards
continued from page 7

to study quality, and should they be picked up elsewhere by the evidence report team? Or is a measure of poor study quality the fact that side/negative effects are not mentioned?

- *CQ6.3* in *Composite Question #6* addresses testing across outcomes. This would also better be placed in *CQ2* dealing with outcome measures.
  CQ6.4 asks about testing for time of measurement; needs clarification by rephrasing.
  CQ6.5 on testing intervention variations might be better placed in *CQ1* (construct validity–interventions).

- *CQ7* addresses statistical validity–effect size estimation; however, the valid use of statistical tests is not judged.
  CQ7.3 and *CQ7.4* address sample size and outcome measurement error. These roll up into the precision of effect sizes, for example, the confidence interval. Effect sizes can be calculated whatever sample size and measurement error; whether the estimate of effect size is "sufficiently precise" is fairly irrelevant. If the various studies surviving *Study DIAD* review are combined, a joint study effect size will be calculated, with its own precision estimate. That's the time to worry about "sufficiently precise."

- *CQ8* addresses the adequacy of reporting of statistical tests, NOT whether the tests performed themselves were adequate or appropriate (e.g. that parametric tests were not used for non-parametric data). In this *Composite Question*, *Q8.3a* is a relevant question, if effect sizes could be estimated for important measured outcomes. If the answer to *Q8.3a* is YES, the answer to Q8.1 (if sample sizes were reported/estimable) is YES, and the answer to Q8.2 (if directions of effects could be identified) is YES. If the answer to *Q8.3a* is NO, questions *Q8.1*, *Q8.2*, and *CQ8.3b* wold be irrelevant. Either you can calculate an effect size (using standard procedures or advanced mathematics), or you cannot. If you cannot, the study cannot contribute to the Evidence Report - unless studies summarized in "effect: yes, effect size: unknown" are included.

- If some of the items in *CQ7* and *CQ8* are deleted, it may be useful to combine the remaining questions into one *Composite Question.*

CREAD

The *Cumulative Research Evidence Assessment Device* (*CREAD*) suggests that *Study DIAD Composite Question* #8 is based on a judgment of censoring/publication bias. The *Study DIAD* does not mention this problem; in fact, a judgment of publication bias cannot be made based on a single study, and that's likely why the *Study DIAD* is silent as to this problem.

Respondent 2:

I appreciate the work that the panel put into the project. I would like to emphasize that some of my most serious concerns are not related to the documents per se, but rather with what actions the developers can take to ensure that the information is used in the most appropriate ways.

First, I would like to applaud the overall quality of the effort. The transparency of the process and algorithms for including, excluding, and aggregating the studies is a very positive step. I appreciate the efforts of the group to be maximally scientific and dispassionate in applying the criteria to the various studies. This is particularly true of the *Study DIAD*, the *CREAD*, and then the actual reports as written, will obviously contain relatively greater elements of subjectivity. While this is not necessarily a bad thing, I think that it is important to acknowledge that there is no failsafe road to objective recommendations. Since most people will not be aware of the limitations of the method involved in reaching the final report, I think it is important to include relevant disclaimers and cautions, and remind people that this is an interpretation of available information. I do not think this is a fault with the method of the WWC, rather it is inherent in this sort of effort.

I do have several concerns with the particulars of the *Study DIAD/CREAD*, however, which I list below. I will include first those most directly related to the nature of disability studies, and follow with comments related to studies in education more generally.

My primary concern from the perspective of someone who has a focus on children with disabilities stems from the restrictions regarding the design of studies that are to be considered for review under the guidelines for the *Study DIAD*. The forward to the document notes that the review will target studies that are capable of adducing causality; however, randomized trials and quasi-experimental methods are certainly not the only means for doing so.

Researching interventions for children with emotional and behavioral disorders (EBD) and/or developmental disabilities (DD), much well-regarded research rests on within-subjects designs which, when well done, certainly can assess causal effectiveness and deserve to be called "scientific." By omitting these types of designs, the universe of "scientific" studies leaves out much of what we know to be effective in educational settings with children with EBD and DD. For example, there are many studies on positive behavioral supports, effective teacher interventions to increase

academic engagement, peer-mediated learning and social skills strategies.

In a similar vein, though of less *particular* concern to the population we tend to study, is that other sorts of designs are also left out, (e.g. regression discontinuity - although I suppose this can be considered a form of quasi-experimental design, it doesn't appear to fit from the criteria as currently listed). Methodologically speaking, I believe inferences regarding causality drawn from regression discontinuity designs are on a par with randomized experiments.

My other concerns relate to interventions in education more generally, and are thus relevant both to disabled (EBD/DD) and nondisabled populations. I will use examples from research on reading interventions, since this is a hotly contested issue currently and also this is one of the first topics that the WWC is intending to address.

First, I appreciate the concern of the developers of the *Study DIAD* with the alignment of outcomes, particularly of the over alignment of outcomes with interventions — for example this will address in a productive way the issue of whether teaching kids phonics by reading pseudowords and then measuring intervention group versus control on reading pseudowords actually has anything to say about decoding of real words, much less comprehension. In other studies, there is even a trickier distinction to make (e.g. is fluency accurately measured by read-aloud outcomes only?). This can only be a judgment call, and I think that consumers of the WWC reports should be made aware of how the reporters have come down on this and other similarly controversial issues.

Even with this attention to alignment of immediate outcomes, I have serious concerns about long-term outcomes from reading interventions as well as the effect over time that might result from people consulting the WWC or similar sources. There is a sort of dynamic over time that can occur, and I think we have seen evidence for some of this already in the area of reading: Short-term studies with easy-to-measure outcomes are the easiest to undertake. Many are done, these approaches appear promising (and may be recommended as "what works", which is legitimate) and are funded more frequently. Textbook companies structure materials around these short-term approaches (since political pressures push for short-term, easy-to-measure outcomes), and these approaches acquire the status of dogma even though there is little evidence of positive long-term outcomes that are meaningful in terms of preparing kids for advanced study and careers.

Recent international comparisons show, for example, that U.S. kids receive more hours per week in reading instruction than international peers. And while the average reading is on par with international peers (at fourth grade measures), an astonishingly high percentage of U.S. fourth graders NEVER read for fun outside of school (32 percent vs. 18 percent internationally). Longer term outcomes for reading levels of US high school students compare less favorably to international outcomes, particularly for certain groups of kids (who happen to be also those least likely to read for fun). I think it is certainly a reasonable hypothesis that increasing demand to focus on drill-type, skill-building, direct instruction methods for reading can have the perverse effect of increasing short-term outcomes while having a long-term negative impact on kids' desire to read and their ultimate academic success.

In the results from the National Reading Panel, we saw this sort of dynamic more or less in effect, with the result that there has been increasing pressure on schools to adopt a very limited number of prepackaged reading programs. And while the studies cited in the NRP report found the largest effect for relatively small amounts of instruction in some of these basic skills (e.g. phonemic awareness and phonics) the pressure in classrooms has been to do more and more, with very little attention to comprehension or stimulation of interest in reading.

I realize that these concerns are somewhat outside the immediate pervue of the *Study DIAD/CREAD* developers, and I do not mean to imply that it is a shortcoming of the approach; *however*, I also think that the developers have a responsibility to anticipate how this sort of information will be used, and to package and contextualize it, and to provide explicit commentary of what the results do and do not allow us to say. Hopefully, this will minimize the potential for misinterpretation or misuse of the information. Thank you for the opportunity to provide input into this interesting and useful project.

Respondent 3:

Overall, I found the standards to be clear and comprehensive as they pertained to research that lends itself to a clean experimental or quasi-experimental design. The value of the guidelines is less clear in areas of disability support and disability policy where experimental designs are more difficult to implement, or, because of the dispersed nature of the population and the difficulty of exerting experimental controls in community environments, establishing adequate power and comparable populations will be more difficult to achieve. These issues are particularly true for low incidence populations.

A second area of concern is the role of the growing emphasis on experimental design in relation to the broad mission of NIDRR around disability policy and the structure and organization of disability and generic supports. This concern is particularly evident for a Center like ours that focuses on state service systems. Our broad mission to describe and improve the delivery of

continued on page 10

NIDRR Grantee Review WWC Draft Standards
continued on page 9

employment supports. Our work is at a state structure and state policy level, and interventions necessarily involve a complex set of variables that don't lend themselves well to experimental control. For example, the total n, from a state perspective, is 50 (or 51 with DC). An intervention in one state is very unlikely to be directly comparable to an intervention in another state given the variation in political and cultural factors, lack of experimental controls over the implementation process, and a host of other variables.

Some general questions are listed below. Thanks for the opportunity to comment.

- To what extent will the WWC guidelines be applied to nonacademic areas including transition planning, employment supports, and development of self-determination skills?
- How will effective practices for low incidence populations be addressed in the implementation of the guidelines?
- How will the guidelines address larger issues like self-determination, employment support, and related transition needs for students from low incidence populations? It will be difficult to amass sufficient evidence for many of these populations.
- How will qualitative research be incorporated in the overall guidance that the WWC provides to practitioners? In particular, qualitative research may serve two roles. As a precursor to the review process it serves to frame hypotheses and the parameters of interventions to allow for effective design of experimental studies. Second, qualitative research may provide closer description of the intervention, and help practitioners to identify the key parameters and relevant variations in the intervention. It seems that the WWC should provide for review and incorporation of qualitative research as part of its process.
- How will the WWC address complex systems-level change such as the design and implementation of employment supports within state government?
- How might single subject experimental designs be incorporated in the analysis?

Respondent 4:

- I am enthusiastic about the adoption of Campbell's framework regarding threats to validity. I've used Campbell & Stanley, and Cook & Campbell, for many years to prepare young researchers to evaluate their (and others') research designs. The approach is eminently reasonable for application to the breadth of research funded by NIDRR, OSEP, IES and other entities. I think it serves us well.
- The hierarchical arrangement of questions in both tools is also reasonable and, furthermore, I found the wording of the questions to be comprehensible and suitable.
- In terms of questions, I admit to an inadequate understanding of some key aspects of the presentation. For instance,
  - It is not clear to me how the tools would be used, by whom, at what point, and for what particular purposes. A number of the questions call for judgments, so the issue of who the reviewers would be is vital.
  - Some parts of the operations (procedures) are confusing to me. For example, I admit (with hesitation) that I do not grasp the statement on the tables, "Read down to determine the answer to the question."
  - In the *CREAD*, what determines the set of studies that would be included in the evaluation of the consistency, depth and breadth of the evidence base?

Respondent 5:

Before I make specific comments on these documents, I pose a couple of caveats based upon my own research and that of my agency.

(1) Although much of our research concerns "intervention," none of our research concerns "educational" interventions – which is the specific research focus of these devices.

(2) As stated in the introductory remarks, these devices do not address qualitative research (the primary type of research I do) nor other types of research that is not randomized nor focused on uncovering causal relationships.

As such, it is difficult to for me to evaluate how well these assessments apply to the types of research we are involved in here. I did find parts of the introductory explanations to be lacking sufficient clarity.

I'm concerned how well either of these evaluation devices work in practice. That is, I'd like to see evidence that these evaluation devices actually reflect how the evaluator(s) would otherwise assess the research. Have these evaluation devices been piloted with people outside the group that developed them? Following are some specific concerns about the *Study DIAD*:

- On page 4: The fourth assumption discussed is that Donald Campbell's approach is "an obvious and natural choice." I'm not familiar with his work, so it doesn't seem either obvious or natural to me. It's not that I'd reject his approach, but I'd certainly want more discussion or description to inspire a little more confidence.
- On page 6: If the authors of a study did not report how participants were allocated to groups, that study would be given a 'no' on the randomized assessment question.

Why "no" instead of "not available?" From this example, I'm concerned that the overall push to reduce the research to fit an algorithmic flow chart under- or over-estimates confidence in these evaluations.

- *CQ6: Was the intervention tested for its effect within important subgroups of participants, settings, outcomes, occasions, and intervention variations?* What does "important" mean here?

- On page 7: I appreciate the attempt to be transparent and flexible regarding definition of terms. However, if each time "vague or ambiguous" terms are given meaning by different leaders doing the evidence reports, then how will possible disagreements or differences be accounted for when trying to do cumulative evaluations under *CREAD*?

Concern about the *CREAD*, page 4: The authors raise the question of how inconsistency of findings will be treated, and suggest that some issues "will be resolved uniformly" while "other issues may be left up to the evidence report team" which "will have to exercise good professional judgement in making these determinations." While I appreciate the complexity of this issue, it leaves me uncertain how consistent and objective these cumulative evaluations would be.

I think questions of consistency across projects are particularly noteworthy when considering much of NIDRR's work across different disabilities. That is, how will possibly similar interventions with different disability populations be addressed?

Respondent 6:

This is an excellent project. I have some comments regarding the two documents:

Social science research design and analysis is also tied to ethical considerations. That is, all else equal, research with better methodological design is of higher ethical quality. Unless, I missed this point, much more could be said about the quality of the research endeavor and ethical considerations. For instance, with external validity issues, meaningful involvement of persons with disabilities in designing and interpreting disability policy research can be important. Regarding the *CREAD*, I have argued that meta-analysis, where possible, is an ethical imperative.

Respondent 7:

I read over the WWC's *CREAD* and the *Study DIAD*, and I think that they are both excellent. Clearly, a lot of work has gone into these documents. My question would be, are they going to be doing something similar for single study subject research designs?

These documents appear to orient towards research that is looking at interventions done at the classroom level. A lot of rehabilitation, say, rehabilitation for kids with Cerebral Palsy who might have impaired speech or language processing, or kids with other physiological disorders who might have impaired cognitive processing, is a tailored program where the person serves as his or her own control. Because there is no way that there would ever be enough kids, except in the very, very largest districts, to get a large group and then randomize them to interventions.

Respondent 8:

My primary concern is that all evidence-based practice carry with it documentation of representativeness (external validity) of population. Specifically, for example, if an intervention or practice is considered evidence -based and recommended or used with American Indians, American Indians should be documented as having been included in the research sample.

Respondent 9:

The documents look very good. They reflect the best in the construction of group designs. The lack of discussion of single subject design is of concern, however. First-rate group design can be very difficult to do with low incidence populations, where sample sizes are small and populations may be pretty heterogeneous. For these populations, single subject design can be the best way to demonstrate treatment effects.

Comments from Researchers on Application of the WWC Standards to NIDRR Research

Several NIDRR grantee respondents expressed concerns that the *Study DIAD* and *CREAD* could be applied to NIDRR-funded research for purposes other than consideration for the WWC databases. The following comments reflect some of those perceptions:

Respondent 1:

In general our biggest issue was how these documents would be used by NIDRR. As a tool to evaluate "centers of excellence," investigators, or research, more work needs to be done.

- *Study DIAD* cannot be used effectively prior to study implementation and reporting. The quality and quantity of a study's implementation (e.g. treatment fidelity, number of subjects) affect *Study DIAD* scores, as does the quality of reporting of the study results. Thus, it is no use when applied to the evaluation of research proposals, i.e., peer review.

- NIDRR grantees doing intervention research often produce multiple publications, all relevant to the main research question/major research hypothesis. *Study DIAD* has no mechanism to handle this. (However, if the publications do not "contradict" one another - different number of cases, etc. - the outcomes could be combined for a single *Study DIAD* scoring).

continued on page 12

NIDRR Grantee Review WWC Draft Standards
continued from page 11

- Based on their research data NIDRR grantees often also publish papers that address side questions, ad hoc hypotheses, etc., for which the research design that was used to answer the main question may not be optimal. *Study DIAD* should not be used to condemn these papers addressing "peripheral" issues and ad-hoc questions: as pilot or exploratory work they may help the science move forward, and should be published with credit given to NIDRR for facilitating "innovation."

Respondent 3:

Establishing true experiments on a scale adequate for meeting the guidelines will require a substantial change in the allocation of funds to research activities. What should the role of NIDRR be, and what are the implications for funding levels usually associated with FIP and RRTC activities? Might NIDRR serve as a R&D arm of ED, framing issues that need a larger scale experimental analysis?

Respondent 5:

Overall, I do appreciate the attempt to standardize how research design and implementation are assessed. However, I definitely have questions about how this type of evaluation would be applied to NIDRR research (i.e., by ignoring other types of research and/or implying that other types of research are less desirable if they are not oriented to causal effect-randomized samples).

If NIDRR were to consider using these evaluation tools for (at least some of) its research, I think NIDRR needs to articulate what the purpose would be (as described in the *Study DIAD*).

Respondent 6:

What is the intended use of these instruments, as relates to the functioning and evaluation of NIDRR's Rehabilitation Research and Training Centers?

Is the idea to apply this model that is designed for educational research to the clinical, policy, and socio-environmental research conducted by NIDRR RRTC grantees?

- Would the model be applied as is, or modified?
- If to be modified, who would be involved in the modification process?
- If to be modified, would one new tool with modifications be applied to all RRTCs, or would specific modifications be made to cohorts of RRTCs with similar functions and focuses?
- Should these tools be applied, who would be the reviewers that would use the tools to review RRTC functioning?
- Would results of the review be used for program evaluation purposes?
- Who would use these results (NIDRR staff, external reviewers, or the program staff themselves for internal program evaluation purposes)?

Resolution of the AAMR on Evidence-Based Research and Intellectual Disability

The move toward evidence-based research as specified in the No Child Left Behind legislation is wise, but its overly restrictive definition harms people with intellectual disabilities and those with other severe disabilities. Any definition of evidence-based research must include methodologies which are widely regarded as scientifically defensible (such as single subject experimental design).

The requirement that research methods be restricted to group design with a preference for randomized clinical trials will significantly inhibit the development and validation of new scientific knowledge in education. There are many situations in which it is not feasible to assign children at random to school placements or to types of instructional settings. Yet these situations do not preclude other viable research designs. These concerns are especially great for people with intellectual and developmental disabilities given their low incidence and their unique characteristics which require individualization of educational intervention.

We strongly urge Congress, the U.S. Department of Education, and other federal agencies to recognize and support the continued use of the full array of research methodologies that are scientifically accepted in the fields of education, psychology, and child development. We request that a committee of highly respected educational researchers in low incidence disabilities be convened without delay to develop appropriate language on the array of scientific research methods for incorporation into the reauthorization of IDEA.

January 13, 2003
AAMR Board of Directors

American Association on Mental Retardation Board of Directors. (2003). Resolution of the AAMR on Evidence-Based Research and Intellectual Disability. Retrieved August 1, 2003 from http://www.aamr.org/Reading_Room/pdf/resolution_research.pdf

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Response from the WWC to NIDRR Researchers' Comments

Full responses from the WWC were not received in time for this issue, but the NCDDR will share them in a separate document at a later date. Following are the WWC's preliminary comments:

The WWC thanks the NIDRR grantees for your thoughtful comments on the *Study Design and Implementation Assessment Device (Study DIAD)*, Version 0.6 and the *Cumulative Research Evidence Assessment Device* (*CREAD*) Version 0.6. We do want to note that the *Study DIAD* and *CREAD* were posted for public comment (November-December 2002 and January-February 2003 respectively) and that the opportunity for public comment was widely circulated among education constituencies. The Feedback on Draft Standards can be viewed at **http://w-w-c.org/standards.html**

The FAQ's posted at **http://w-w-c.org/faqs/index.html** provide additional context and clarification about the standards and other aspects of the WWC's work. As you will see if you review our Web site at **http://w-w-c.org/**, many of the comments and questions you have raised are addressed in these documents.

Public comments, as well as those offered by the WWC's Technical Advisory Group (TAG), were incorporated in the revised standards. Version 1.0 of both the *Study DIAD* and the *CREAD* were recently approved by the TAG. The WWC will revisit, and if necessary revise and improve upon the standards periodically, based on comments such as the ones you have offered and experiences in using the standards in Evidence Reports.

The WWC looks forward to providing responses to your questions and comments in the near future. We welcome your further comments or questions on the WWC. Please address them to: **wwcinfo@w-w-c.org**

Online Resources

Coalition for Evidence-Based Policy
http://www.excelgov.org/displayContent.asp?Keyword=prppcHomePage

- *Bringing Evidence-Driven Progress To Education: A Recommended Strategy for the U.S. Department of Education (Executive Summary.)*
  http://www.excelgov.org/usermedia/images/uploads/PDFs/CoalitionExSum.pdf
- *Rigorous Evidence: The Key to Progress in Education*
  http://www.excelgov.org/displayContent.asp?Keyword=prppcEvidence

Education Sciences Reform Act (ESRA)
http://www.ed.gov/policy/rschstat/leg/PL107-279.pdf

Evidence Based Education (EBE) (Whitehurst, 2002).
http://www.ed.gov/nclb/methods/whatworks/eb/edlite-index.html

Institute for Education Sciences (IES)
http://www.ed.gov/about/offices/list/ies/index.html

No Child Left Behind Act (NCLB)
http://www.ed.gov/policy/elsec/leg/esea02/index.html

NCLB Web site
http://www.nclb.gov

Reforming and Reauthorizing IDEA.
H.R. 1350, Improving Results for Children With Disabilities Act of 2003
http://edworkforce.house.gov/issues/108th/education/idea/idea.htm

Reauthorization of the Rehabilitation Act (ILRU/TIRR)
http://www.ilru.org/ilnet/rehab/

Resolution of the AAMR on Evidence-Based Research and Intellectual Disability
http://www.aamr.org/Reading_Room/pdf/resolution_research.pdf

RSA – Legislation & Policy
http://www.ed.gov/about/offices/list/osers/rsa/policy.html

Statement before the House Subcommittee on Labor/HHS/ Education Appropriations,
(Whitehurst, 2003).
http://www.ed.gov/news/speeches/2003/03/03132003a.html

What Works Clearinghouse
http://w-w-c.org/

- **American Institutes for Research (AIR)**
  http://www.air.org/
- **Aspen Systems Corporation**
  http://www.aspensys.com/
- **Caliber Associates, Inc.**
  http://www.calib.com/home/index.cfm
- **Campbell Collaboration**
  http://www.campbellcollaboration.org/

EVIDENCE-BASED MEDICINE

- **Agency for Health Care Research and Policy (AHRQ)**
  http://www.ahrq.gov/
- **Centre for Evidence Based Medicine**
  http://www.cebm.net/
- **Centre for Health Evidence - Users' Guides to Evidence-Based Practice**
  http://www.cche.net/usersguides/main.asp
- **Cochrane Collaboration**
  http://www.cochrane.org/

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Who's in the News

Members of the NCDDR staff are on the lookout for popular and disability media pieces that present research funded by NIDRR. In this issue, we share items from:

- ***Disability Network*** newsletter
- ***The Boston Globe, EContent Magazine***, and ***Government Computer News***
- ***Daily Mason Gazette,*** George Mason University

Who's in the News is a feature of *The Research Exchange* that shares some of the stories about NIDRR grantees and their research that have appeared in national media sources. Staff members will talk with grantees and media representatives about the origin and evolution of the stories, and their interactions with media representatives. Sharing this may be helpful to other grantees who would like to establish relationships with journalists and work with them to make information about their research available to the public.

Please let the NCDDR know when an item representing your NIDRR-funded project appears in the media. Call us, **1-800-266-1832,** or send email to **ncddr@sedl.org** and the item will be reviewed for *Who's in the News*. You may also use an online form: **http://www.ncddr.org/forms/submitnews.html**

The announcement of the *IT Works Ability Awards* was highlighted in Diversity World's ***Disability Network*** newsletter, February 7, 2003. The Awards were established by the Information Technology Association of America (ITAA), in cooperation with the University of Iowa Law, Health Policy & Disability Center's NIDRR-funded **IT Works** project. Read the Diversity World newsletter article: **http://www.diversityworld.com/Disability/newsletter.htm#February%207,%202003**

IT Works Ability Awards is a national awards program "to stimulate interest in employing individuals with disabilities and to give public recognition and reward to IT firms that have developed effective strategies that promote the employment and advancement of people with disabilities." (ITAA, 2003, **http://www.itaa.org/workforce/gendoc.cfm?DocID=101**)

Press release from University of Iowa: http://www.uiowa.edu/~ournews/2002/may/0509disability-center.html

The 2003 award winners were announced on May 5 at the ITAA's sixth annual National IT Workforce Convocation in Arlington, Virginia and included IBM (Recruitment and Hiring), Microsoft (Accommodations), and Xerox (Developing Accessible IT Products and Services).

Press Release about the Awards announcement on the ITAA Web site: http://www.itaa.org/news/pr/PressRelease.cfm?ReleaseID=1052825625

For more information, contact **IT Works Project** director, James Schmeling: **james-schmeling@uiowa.edu**

The ***Boston Globe*** (Business section), ***EContent Magazine,*** and ***Government Computer News*** picked up a press release about the new Accessible Technology Knowledgebase (ATKB) implemented by the NIDRR-funded Information Technology Technical Assistance & Training Center (ITTATC). Based in Atlanta at the Georgia Institute of Technology, ITTATC has added a powerful and user-friendly natural language search capability to their Web site.

Searches will automatically query the Web sites and databases of the following federally funded disabilities-related resources.

- AccessIT **http://www.washington.edu/accessit/**
- AssistiveTech.net **http://www.assistivetech.net**
- DisabilityInfo.gov **http://www.disabilityinfo.gov**
- ITTATC.org **http://www.ittatc.org**
- Section508.gov **http://www.section508.gov**

Partners in the ATKB project include iPhrase Technologies, Inc.; IDEAL Group, Inc.; NCR Corporation; and ITTATC. iPhrase is completing the ATKB's year-end advanced tuning process. Advanced tuning helps to insure the results of a search produce knowledge that is as current and relevant as possible.

For more information, contact Mimi Kessler, ITTATC Project Director **mimi.kessler@ittatc.org**

- ***Boston Globe***. February 24, 2003 by Peter J. Howe iPhrase behind government initiative to help disabled **http://www.iphrase.com/PDFs/02-24-03_BostonGlobe.pdf**
- ***EContent Magazine***. February 25, 2003 **http://www.econtentmag.com/Articles/ArticlePrint.aspx?ArticleID=4078&CategoryID=18**
- ***Government Computer News***. April 1, 2003 **http://www.gcn.com/vol1_no1/daily-updates/21544-1.html**
- iPhrase Press Release, February 24, 2003 **http://iphrase.com/news/feb2403.html**
- About the ITTATC Accessible Technology Knowledgebase (ATKB) **http://www.ittatc.org/search_tips.cfm**

An article by Robin Herron appeared in the ***Daily Mason Gazette***, George Mason University, on March 11, 2003 describing the Middle School Phonemic Awareness Study. The study

is a field-initiated project funded by NIDRR and directed by Dr. Barbara Given, Associate Professor, Graduate School of Education at George Mason University. Dr. Given is director of adolescent and adult learning research projects at the Krasnow Institute for Advanced Study at GMU.

The project focuses on the role of phonemic awareness in adolescents with low reading skills. Herron's article describes the study and how it is intended to help students make reading gains at a middle school in the Fairfax County Public Schools in Alexandria, Virginia. Glasgow Middle School, site of the Middle School Phonemic Awareness Study, was also named an "Accelerative Learning Model School" by the International Alliance for Learning, for its part in Dr. Given's research efforts.

For more information about the study, contact Dr. Barbara Given: **bgiven@gmu.edu**

"Reading Research Program Benefits Fairfax County Middle School Students"
http://gazette.gmu.edu/articles/index.php?id=4385

NIDRR Grantee and Staff Recognition

The NCDDR continues to share the recognition given to NIDRR-funded researchers and their staff. The items presented in *The Research Exchange* demonstrate the wide variety and prestige of special awards made to staff members of NIDRR-funded projects across the country.

All grantees are encouraged to send this information to the NCDDR for future issues. Send email to **ncddr@sedl.org**, call **1-800-266-1832**, or use the online form available on the NCDDR Web site: **http://www.ncddr.org/forms/submitrecog.html**

Judy Brewer, Director of the Web Accessibility Initiative (WAI) at the World Wide Web Consortium (W3C), was honored by the Alliance for Public Technology (APT) with the *Susan G. Hadden Pioneer Award.* She was recognized "for pioneering efforts in telecommunications and consumer access" at a luncheon held February 21, 2003 at the National Press Club in Washington, DC.

The *Susan G. Hadden Pioneer Award* honors the memory of APT's Public Policy Committee Chair who was killed while a tourist in Cambodia, in January 1995. APT leaders called Dr. Hadden, who was Professor of Public Affairs at the LBJ School of Public Affairs at the University of Texas in Austin, "unique in her mastery of the complex tangle of regulatory and technical issues that accompany the current debate over telecommunications." The award recognizes those who continue Hadden's legacy of ensuring equitable access to technology as a democratizing principle.

For more information, contact **Judy Brewer: jbrewer@w3.org**

Media Access Generator software, **MAGpie 2.01**, recently received Honorable Mention for *Best Educational Streaming Program* in *Streaming Magazine's* 2003 Reader's Choice awards. Developers of Web- and CD-ROM-based multimedia need an authoring tool for making their materials accessible to persons with disabilities. The **CPB/WGBH National Center for Accessible Media (NCAM)** has developed MAGpie version 1.0 and 2.01 for creating captions and audio descriptions for rich media. Funding was received from NIDRR, the Trace Research and Development Center, and the Mitsubishi Electric America Foundation.

For more information about MAGpie 2.01, contact: **ncam_tech@wgbh.org**

Dr. Judith Cook has received the American Sociological Association's (ASA) 2003 *William Foote Whyte Distinguished Career Award.* **Dr. Cook** is the Principal Investigator of the NIDRR-funded **UIC National Research and Training Center on Psychiatric Disability,** University of Illinois at Chicago.

Dr. Cook was honored for "her success in applied research, her commitment to participatory action research (PAR), and her effective work as a mentor to a large number of students." The *William Foote Whyte Distinguished Career Award* is presented by the Sociological Practice Section of the ASA to an individual who has made notable contributions to sociological practice which can include several of the following elements: outstanding clinical or applied work, exceptional service to the section, publications that advance both the theory and methods of sociological practice, or mentoring and training of students for careers in sociological practice. The award honors the ASA's 72nd President.

For more information, contact **Ms. Edie Bamberger: bamberg@psych.uic.edu**

In October, 2002, **Mitchell Rosenthal, Ph.D.**, Project Director of the **Traumatic Brain Injury National**

NIDRR Grantee and Staff Recognition
continued on page 16

NIDRR Grantee and Staff Recognition
continued from page 15

Data Center, was awarded the *2002 Gold Key Award of Merit* from the American Congress of Rehabilitation Medicine (ACRM), "in recognition of extraordinary service to the cause of rehabilitation medicine." It is the highest honor given by ACRM.

Dr. Rosenthal was also honored recently as the *Leonard Diller Lecturer* by the Division of Rehabilitation Psychology of the American Psychological Association at its conference "Rehabilitation Psychology 2003" held in Tucson in April, 2003. **Dr. Rosenthal** is Vice-President for Research at Kessler Medical Rehabilitation Research and Education Corporation and Professor of Physical Medicine and Rehabilitation at the University of Medicine and Dentistry of New Jersey - New Jersey Medical School.

For more information, contact **Mitchell Rosenthal: mrosenthal@kmrrec.org**

A number of NIDRR grantees were named in the 14th annual ***US News and World Report's*** Best Hospitals. Seven of the top 17 hospitals on the 2003 Honor Roll have NIDRR grants. These medical center and hospitals were highly ranked in 6 or more of the 17 Best Hospitals specialty areas, out of 203 hospitals ranked.

1. Johns Hopkins Hospital, Baltimore
2. Mayo Clinic, Rochester, MN
6. Duke University Medical Center, Durham, NC
9. University of Michigan Medical Center, Ann Arbor
10. University of Washington Medical Center, Seattle
15. Stanford Hospital and Clinics, Stanford, CA
17. Vanderbilt University Medical Center, Nashville

See original article:
http://www.usnews.com/usnews/nycu/health/hosptl/honorroll.htm

A total of 18 of the top 23 Rehabilitation Hospitals are current grantees of NIDRR. The hospitals ranked in this list were identified by at least three percent of the board-certified physicians who responded to ***U.S. News*** surveys in 2001, 2002, and 2003.

1. Rehabilitation Institute of Chicago
2. TIRR - The Institute for Rehabilitation and Research, Houston
3. University of Washington Medical Center, Seattle
4. Mayo Clinic, Rochester, MN
5. Craig Hospital, Englewood, CO
6. Kessler Institute for Rehabilitation, West Orange, NJ
8. Thomas Jefferson University Hospital, Philadelphia
9. Spaulding Rehabilitation Hospital, Boston
10. Ohio State University Medical Center, Columbus
11. Rancho Los Amigos National Rehabilitation Center, Downey, CA
12. Johns Hopkins Hospital, Baltimore
13. National Rehabilitation Hospital, Washington, DC
14. University of Michigan Medical Center, Ann Arbor
15. Moss Rehabilitation Hospital, Albert Einstein Medical Center, Philadelphia
16. Shepherd Center, Atlanta
17. Mount Sinai Medical Center, New York City
18. Stanford Hospital and Clinics, Stanford, CA
23. University of Alabama Hospital at Birmingham

See original article:
http://www.usnews.com/usnews/nycu/health/hosptl/rankings/specrepreha.htm

See full report: *US News and World Report's Best Hospitals 2003*
http://www.usnews.com/usnews/nycu/health/hosptl/tophosp.htm

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